User Guide – HT649 Serie

v10/10

Professional submersible marine handheld transceiver

Common Information

HT649

LCD GMDSS

Declaration of Conformity

We Entel UK Limited of:

320 Centennial Avenue
Centennial Park
Elstree
Borehamwood
Hertfordshire
WD6 3TJ
United Kingdom

Declares under our sole responsibility that the product range:

HT600 Series Handheld Radio Transceiver

Conforms to the following standards or other nominative documents:

- EN 301 178-2 V1.2.2: 2007-02, EN 60945:2002, EN60950-1: 2006, in accordance with Directive 1999/5/EC.
- EN 300 225 V1.4.1: 2004-12

Serial Number_____

M Austin

Quality Manager

Date: 1 October 2010

CE

ISO 9001
REGISTERED FIRM

Radio care

Warranty

The HT6XX comes with a 24 month warranty, for details see our full terms & conditions.

Advice

- Do not use options or accessories not specified by Entel
- Ensure that the radio is used within the parameters for which it was designed
- Please switch the transceiver off before connecting optional accessories

Warning

Turn the transceiver off in the following locations:

- In explosive atmospheres (flammable gas, dust including metallic & grain powders etc)
- Whilst taking on fuel or while parked near a fuel station
- Near explosives or blasting sites
- In aircraft, medical institutions or near persons known to be wearing a pacemaker

Caution

- Do not disassemble or modify the transceiver for any reason
- Do not transmit while touching the antenna terminal or any exposed metallic parts of the aerial as this may result in a burn
- Please check and observe regulations in your country with regard to use whilst driving

Cleaning your Radio

After exposure to any potentially corrosive substance including salt water it is recommended to thoroughly wash the transceiver in fresh water.
If washing with the battery removed from the radio, ensure that the battery is not immersed in water and clean only with a damp cloth.

Note: Do not wash the transceiver if you suspect the waterproofing seal may be damaged. Please return to your supplier for inspection/repair.

End of Life Disposal

When your Entel transceiver reaches the end of its useful life, please ensure that the unit is disposed of in an environmentally friendly way.

For country specific information please see www.entel.co.uk/recycling.

Battery care / information

Introduction

Your Entel radio is supplied with a high performance Lithium-Ion (Li-Ion), or primary type Lithium battery.

These batteries:

- Extend talk time
- Reduce the battery's size and weight
- Do not suffer from 'memory effect' that reduces the life of Ni-Cad and NiMH batteries
- Have a low toxicity, therefore reducing the impact on the environment

Battery Pack Precautions

- Switch the transceiver OFF before charging
- Charge the battery pack before use
- Do not recharge the battery pack if it is already fully charged
- Charge the battery in accordance with the instructions enclosed with your charger
- Do not charge the transceiver and/or battery pack if they are wet

The battery pack includes potentially hazardous components. Please:

- Do not disassemble or reconstruct battery
- Do not short-circuit the battery
- Do not incinerate or apply heat to the battery
- Do not immerse the battery in water unless attached securly to the radio or get it wet by other means
- Use only the specified charger and observe charging requirements
- Do not pierce the battery with any object or strike it with an instrument
- Do not use the battery pack if it is damaged in any way
- Do not reverse-charge or reverse-connect the battery
- Do not touch a ruptured or leaking battery

If liquids from the battery get into your eyes, immediately:

- Wash your eyes out with fresh water and avoid rubbing them
- Seek medical treatment

Battery Pack

- If a battery is not to be used for an extended period of time (e.g. several months) remove the battery pack from the equipment and store in a cool and dry location (around 0°C) part charged. Do not fully discharge the battery before storage
- Each charge cycle reduces the battery's life. Minimise the number of times you charge your battery especially in hotter environments which further shortens a battery's life.

GMDSS Battery (CLB750x)

The GMDSS batteries (CLB750L \ G \ M depending on which cells have been used in the battery pack) are non-rechargeable Lithium batteries. The battery is supplied with a security seal that must be removed before fitting to the radio. An expiry date is printed on the battery. Do not use this battery if past the expiry date. Replacement batteries are available from your local authorised dealer. If you require assistance where to purchase please contact Entel for details.

Under no circumstances must you attempt to recharge these batteries

Note: only genuine Entel batteries should be used. Customer satisfaction is assured as you can not be supplied with sub standard, potentially dangerous battery packs from 3rd party manufacturers, ensuring it delivers the expected capacity and endurance.

On HT series batteries a breathable membrane is used. This is clearly marked on the battery label. Piercing the membrane will allow water ingress to the battery, and will invalidate the warranty.

Packing List

- HT64x Transceiver
- CNB750E Rechargeable 1800mAh Li-Ion battery (May not be included with GMDSS)
- CLB750x Non rechargeable Lithium battery (GMDSS only)
  (CLB750L, CLB750G or CLB750M depending on which cells have been used in the battery pack)
- CBH750 Spring loaded belt clip
- CATxx Antenna

CCA trickle charger included with certain models

Optional Accessories

Battery & Charger Options

CNB750E	Spare 1800mAh Lithium-Ion battery pack with rear clip
CLB750x	Spare 2000mAh Lithium non-rechargeable battery with rear clip (GMDSS models only)
CSAHT	1-way intelligent rapid charger, 110-230v
CSBHT	6-way intelligent, rapid charger, 110-230v
CCAHT-230	1-way trickle charger with 230V mains adapter
CCAHT-110	1-way trickle charger with 110V mains adapter
CCAHT-12	1-way trickle charger with cigar lighter lead, 12V DC operation

Carry Options

CFC750	HT64X soft leatherette case finished in black with carry strap
CLC752	HT642, HT648 heavy duty black leather case with strap & belt loop
CLC753	HT644 & HT649 heavy duty black leather case with strap & belt loop
CBH750	Spare spring loaded belt clip

Audio Accessory Options

CMP1/750	Compact medium duty speaker microphone with earpiece jack
CMP750	Heavy duty submersible speaker microphone
EHP9	D-shaped earpiece (plugs into CMP1/750 or CMP750 above)
EA12/750	D-shaped earpiece with in-line PTT/microphone & VOX*
EA15/750	Earpiece microphone with transparent acoustic tube & VOX*
EA19/750	D-shaped earpiece with boom microphone and in-line PTT & VOX*
EHP750	D-Shaped earpiece (connects directly to radio)
EPT40/750	Bone conductive earpiece microphone with PTT
CXR5/750	Bone conductive skull microphone with in-line PTT
CXR16/750	D-shaped earpiece and throat microphone with in-line PTT

Optional Accessories cont...

CHP1/750	Light weight single earpiece headset with in-line PTT & VOX*
CHP750HS	Single earpiece ear defender headset with boom mic and in line PTT for hard hat & VOX*
CHP750HD	Double earpiece defender headset with boom mic and in line PTT for hard hat & VOX*
CHP750D	Double earpiece headband defender headset with boom mic and in line PTT & VOX*
CHP750BT	Bluetooth double earpiece headband defender headset with boom mic and ear cup PTT
CBH750	Spare spring loaded belt clip

*VOX = Voice Operated Transmit (hands free operation)

Bluetooth option board in radio is required to use Bluetooth audio accessories. *(Not available for HT644/HT648/HT649)*

For complete up to date list of optional accessories visit www.entel.co.uk

Preparing Your Radio For Use

Simplex/ Duplex Channel Use

Your transceiver has been factory programmed in accordance with International regulations.
The mode of operation cannot be altered from simplex to duplex or vice versa. Simplex or duplex mode is automatically activated, depending on the channel selected. If you have a licence to use a specific simplex or semi-duplex channel, contact your dealer who may be able to programme your channel using the transceiver's private channel memory.

INT, USA, & Canadian modes

In compliance with worldwide license regulations the following version of HT644 are available:
Version A : INT, USA, & Canadian modes
Version B, C and D : INT mode only
1. In the case of version A only ; to change the channel set of the transceiver, hold down the [WX] key. The mode changes from USA to Canadian to International.

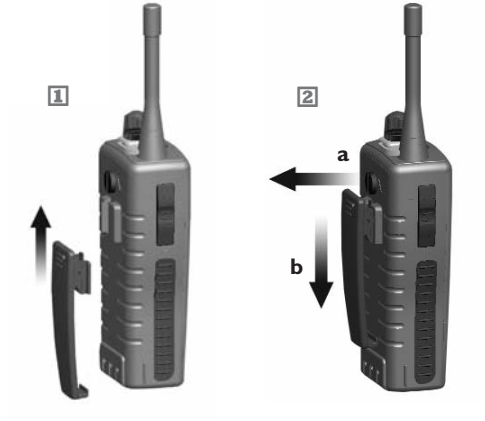
Attaching / Removing the Battery Pack

1. To attach, locate the pegs on the bottom of the battery into the slots on the radio and press the top of the battery against the radio. Secure battery by tightening the screw clockwise by hand. (Do not over tighten)
2. To remove, unscrew the locking screw anticlockwise and pull the battery away from the top of the radio.

Preparing Your Radio For Use cont...

Attaching / Removing the Belt Clip

1. To attach, locate the clip into the slot on the back of the battery and slide up until you hear a "click".
2. To remove, pull the tab (**a**) towards the belt clip. Then slide the belt clip downwards (**b**).



Attaching / Removing the Aerial

1. To attach, carefully align the aerial with the socket. Screw in the aerial clockwise (taking care not to cross the thread) until it is seated firmly against the top of the radio.
2. To remove, unscrew the aerial anti-clockwise.

Attaching / Removing Audio Accessories

1. To attach, remove the accessory cover by unscrewing the locking screw anti-clockwise (leave cover attached or store in a safe place). Attach accessory plug by locating over the socket. Carefully tighten the locking screw clockwise until finger tight (do not tighten with a screwdriver etc).
2. To remove, unscrew the locking screw by hand in an anti-clockwise direction (carefully use a coin or screwdriver if too tight). Ensure you re-fit the accessory cover so as to protect the socket.

Charging Your Radio

Several charger options are available. Please refer to your charger user guide.

Using Your HT649

On / Off button

Press the on / off button to turn your radio on. A short turn on beep will be heard. To turn off, press and hold the on / off button until the display extinguishes.

Using your radio

Before using your radio you may need to adjust the volume on the radio to take in to account background noise. Adjust the volume using the rotary control on the top of the radio.

Transmitting on your radio

Before transmitting, ensure that the channel is not in use. To transmit press and hold the PTT - button and speak approximately 35 - 50mm from the microphone on the radio. To receive, release the PTT button.

Scan

1. Select the desired channel to be scanned using the & buttons.
2. Press the [MEM] button to store the channel into the transceiver's memory. [MEM] is displayed on the LCD. This channel is now memorised to be scanned.
3. To add further channels, repeat steps 1 & 2.
4. To delete a channel from the transceiver's scan memory, simply press [MEM] button again whilst the memorised channel is displayed. [MEM] disappears.
5. All channels programmed remain in the scan memory even if the power is switched off.
6. To start scanning, press the [SCAN] key. The scan proceeds from the lowest to the highest programmed channel number and stops on channels when a transmission is received.
7. To stop the scan at any time, press the [SCAN] key.

Emergency Channel

Channel 16 is used for emergency contact with other vessels. Hold down the [16] key for 1 second to select channel 16.

Monitor Button

Press the blue monitor button on the top of the radio to defeat the squelch mute and release button to mute radio. A long press (radio will beep) will hold the squelch mute open until pressed again to cancel again to return to squelch mute.

Adjusting squelch threshold

Press the blue monitor button on the top of the radio and switch radio on. Use and buttons to adjust threshold (between 01 - 16). Press MEM to store the setting.

A / B Button

Hold down A/B button and turn on radio. The letter A will appear and dashes _ _ indicate no channel is assigned. Press up/down button to desired channel. Press MEM to select channel. Channel is stored when display stops flashing. To allocate channel to B, press A/B again and repeat process. Switch radio off/on to return to user mode. To clear a channel turn radio on holding A/B button. Press MEM then turn radio off/on.

Securing Your Radio

You may secure your radio to you using either the supplied CBH750 belt clip or using an optional leather case.

HT649

Standard Features:

MED

- Environmentally protected to IP68 i.e. submersible to 5 metres for up to 60 minutes
- Robust design, exceeds MIL-STD-810C/D/E/F
- GMDSS (Conforms to Pan European Specification ETS300-225 for the use of radios for Safety at sea
- LCD screen to display channel number
- Non rechargeable Lithium battery for superior operational time
- 19 International Simplex channels
- Transmit power output 1 Watt
- Exceptionally loud and clear audio
- Ch 16 shortcut button
- Scan button
- Monitor button
- MEM button
- Automatic power save to further increase operational time
- Low battery alert indicates when the battery needs replacing

Controls & Indicators

1. On / Off button. Press to turn radio on, press and hold to turn off.
2. Monitor button. Press to monitor channel
3. Channel scan button. Press to start/stop channel scanning.
4. Channel change buttons. Press up/down buttons to change channel.
5. Mem button. Press to memorise channel to scan.
6. Ch 16 button. Shortcut button to access channel 16.
7. Function button:
   - Short press will illuminate display backlight for 3 short period.
   - Long press will activate/deactivate keylock
8. PTT button. Press & hold to speak. Release to listen.
9. LED indicator.
   - RED Steady = Transmitting
   - RED flashing slowly = Battery needs re-charging
   - GREEN Steady = Receiving

LCD Indicators

- Keypad lock
- Battery State
- Channel Monitor
- Memorise channel for scanning MEM